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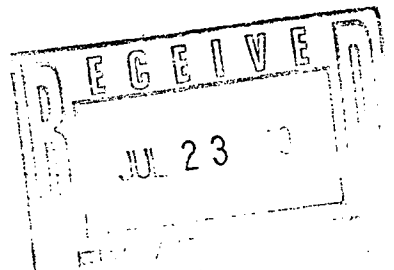
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Docket Number:

A-90-16

A-90-16
IV-D-37**Volkswagen of America, Inc.**888 West Big Beaver Road
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July 23, 1990

Air Docket (LE-131)
U. S. Environmental Protection Agency
Room M-1500
401 M Street, S.W.
Washington, D.C. 20460

Attention: Docket No. A-90-16

Volkswagen of America, Inc. (Volkswagen) hereby provides a response to the following June 5, 1990 Federal Register Notice:

Fuels and Fuel Additives; Waiver Application
(55FR22947).

This notice specifically requests comments on an application, submitted by Ethyl Corporation, for waiver of the prohibition against introduction of certain fuels and fuel additives. The application seeks a waiver for an octane enhancing additive, HITEC 3000, consisting of methylcyclopentadienyl manganese tricarbonyl (MMT) blended with unleaded gasoline at a level of 0.03125 (1/32) gram manganese per gallon.

Volkswagen requests that EPA deny Ethyl Corporation's request. As a member of the Association of International Automobile Manufacturers (AIAM), Volkswagen concurs with the comments presented by the Association on behalf of its members. We share the opinion expressed by AIAM that any increase in emission levels resulting from the use of a fuel additive is reason for serious concern and therefore justifies denial of the waiver request. As emission standards and in-use compliance requirements become increasingly stringent, even slight increases in exhaust emission levels cannot be tolerated.

Previous studies have shown that MMT has a negative effect on the performance of ignition system components, namely spark plugs; and exhaust emission control system components, namely catalytic converters and oxygen sensors. This effect presents the potential for reduced emission control and accelerated deterioration of the critical ignition and exhaust emission control system components. Degradation of these components, due to the use of MMT, result in an increase in both hydrocarbon and



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carbon monoxide emission levels.

On the basis of these concerns, EPA denied previous Ethyl Corporation MMT fuel additive waiver requests for concentrations of 1/16, 1/32, and 1/64 gram manganese per gallon of unleaded gasoline. Volkswagen has no reason to believe that the use of the HITEC 3000 additive, with a concentration of 1/32 gram manganese per gallon, will not contribute to the problems that were experienced previously.

In written comments and during the public hearing conducted by EPA to consider the Ethyl Corporation waiver request, the issue of health effects associated with exposure to manganese in the ambient air was discussed. Of specific concern was the potential toxicity of MMT. Volkswagen shares this concern. According to studies regarding potential health effects, exposure to high levels of manganese produce a Parkinson-disease-like neurological disorder. Respiratory effects of manganese include bronchitis, pneumonitis, and an increase in the susceptibility to respiratory infections. On August 13, 1985, EPA issued a decision not to regulate manganese as a hazardous air pollutant under Section 112 of the Clean Air Act; however EPA stated its intention to continue to monitor research activities and re-assess its decision if warranted. Similarly, the California Air Resources Board (CARB) maintains that manganese is a substance of possible concern with respect to identification as a toxic air contaminant emitted by motor vehicles.

In the mid- to late-1980's, Volkswagen was investigating the possibility of introducing an emission control system for Diesel-powered vehicles designed to reduce the emission level of particulate matter. The design included a particulate trap and a system for injection of a manganese-based fuel additive to promote the burning of the soot collected in the trap. In view of the health-related concerns associated with manganese as described above, and particularly those concerns expressed by CARB, Volkswagen elected to not market this system. In the absence of conclusive data regarding form, chemical species, ambient levels, public exposure, and dose of manganese emitted from motor vehicles, Volkswagen could not introduce the additive system. Volkswagen encourages EPA to take the same conservative approach in its consideration of the Ethyl Corporation MMT waiver request.

In conclusion, Volkswagen maintains that on the basis of the potential degradation of critical ignition system and emission

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control system components, and the resultant increase in exhaust emission levels due to the use of MMT, the Ethyl Corporation waiver request should be denied. Moreover, the concern surrounding manganese as a neurotoxic substance that may also demonstrate harmful pulmonary effects, further justifies denial of the waiver request.

Volkswagen appreciates the opportunity to comment on this issue and anticipates a favorable decision on the part of EPA.

Best regards,

VOLKSWAGEN OF AMERICA, INC.


Wolfgang Groth
Manager

Emission Regulations, Certification,
and Powertrain

cc: Mary T. Smith, Director
Field Operations and Support Division (EN-397F)